

Pro/file Updates

The Newsletter For ZX Pro/file Users

Vol. 2, No. 1

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WITH APOLOGIES

Well, here it is February and the January issue of Updates has just reached you. I'm sorry for the delay. It seems that no matter what I do, it comes out late. First was the Pro/File 2068 manual (1 year behind schedule), then SyncWare News Volume 1 (4 months behind schedule), SyncWare News Volume 2, Number 3 (6 weeks late), and finally Updates (4 weeks past due). Fortunately, I am getting a handle on all this work. I am pleased to report that everything is now finished and is at one stage or another in the middle of the printing or mailing out process. Thank you for your patience. If you have been waiting for one of the above items, rest assured, it will arrive soon.

TS1000 and ZX81 PARTS AVAILABLE

As our lowly ZX computers fade into the setting sun, die-hards among our ranks have expressed concern over where to find replacement computers and parts. For the time being, ZX81 computers, power supplies and parts (ULA's, ROM's circuit boards, etc.) can be obtained from Thomas W. Laffin, Communications Systems Center, Bridge Street, Box 133, Hillsboro, NH 03244. Laffin, an old Sinclair owner and Pro/File hacker from way back, will send you a price list if you write for one. I suggest you enclose a buck or two as a courtesy.

SPECIAL NUMBER CRUNCHER ISSUE

In keeping with a promise made long ago, I now have added math capabilities to ZX Pro/File's repertoire. Read all about it inside. This modification really changes the face of Pro/File the file manager, turning it into a completely different program. I am anxious to hear what new applications arise from it.

GOOD NEWS FOR TS1500 OWNERS!

Many readers interested in using ZXLR-8, the fast load program described in the last issue, but who are discouraged to learn that it won't work in their TS1500 computers will be pleased to learn that Joseph C. Woyak of Appleton, Wisconsin got his ZXLR-8 program running in his 1500. He pulled out the 8K ROM from his old ZX81 computer and stuck it into the 1500. The chips in both computers are compatible. Swapping them requires nothing more than opening the case, prying the ROMs out of their sockets, and plugging them back in to their new homes. According to Woyak, "I'm happy to report that ZXLR-8 with the 1000 ROM in my TS1500 works just fine."

MORE ON Q-SAVE IN THE 1500

by

David W. Thomas

Since my last tip on using QSAVE with the Timex 1500 (see Updates vol. 1, #4), it seems I may not be the only one out here with such a set-up. If that is the case, others might be interested in modifying the QSAVE program so as to allow its use with the 1500 and the Timex 16K memory expansion.

This modification involves moving the QSAVE machine code to the top of the 32K available memory and then changing the call and jump commands to the new addresses. As there are 50 calls to be modified, it is easier to change all instructions that contain the bytes that have to be changed, and then change the three occurrences that aren't addresses back to what they were originally.

First, load the normal 16K QSAVE. When the program stops, give it the command "LIST 4". This will bring up the program without the screen full of machine code. Make the following changes to the existing program lines:

```
20 FOR B=48384 TO 48816
30 POKE B,PEEK (B-31870)
70 POKE 16389,189
80 PRINT AT 10,5;"32K QSAVE NOW
  LOADED"
```

Now add the following lines:

```
100 FOR N=16514 TO 16946
110 IF PEEK N=126 THEN POKE N,1
89
120 IF PEEK N=126 THEN POKE N,1
90
130 NEXT N
140 POKE 16748,126
150 POKE 16869,126
160 POKE 16879,126
```

After proof-reading your listing changes, give the command GOTO 100. The program should stop after about 5 seconds with a code of 0/160. You may now delete lines 100 to 160. If your computer loads reliably you may want to change line 90 to PAUSE 180, and add line 100 NEW. This will cause the message "32K QSAVE NOW LOADED" to be displayed for three seconds and NEW to then be executed. You should SAVE the program at this point with the command GOTO 4. This will autosave the program, so have your

tape recorder ready when you hit ENTER. Note that since RAMTOP is reset by line 70 of the QSAVE program, it is not necessary to reset it again.

Since QSAVE is now located at a different address, the new commands are:

```
LOAD: PRINT USR 48755
SAVE: PRINT USR 48767
VERIFY: PRINT USR 48761
```

PRO/FILE SINGS AT THE TABERNACLE

From Bill Hall, Laurel, MD: One of my duties as Minister of Music for the Tabernacle is to compile a schedule of all volunteer help during our Sunday morning services. This involves seven different areas of ministry and as many as ten individuals per area. Conflicts of scheduling this large group of people led us to begin coordinating all seven areas.

In the past, I had to gather information from leaders in the different areas and type it on a monthly schedule. Since some of the people continue in their areas from month to month, re-typing gets old real soon. This is where Pro/File and my printer come in handy.

I formatted the files like this:

*4 NOV 84-USHER, etc.

for each date and ministry. Then I can call by date or ministry. Below each file name are the list of people who work in those areas. By calling a name I can get the date of service and ministry involved. If two ministries show up on the same date, I know we have a conflict.

In addition, I placed a search number at the end of each file so that I can print out an ordered search to put the whole month in date/ministry arrangement. My Timex printer then gives me a uniformly spaced listing which can be pasted together and run on our copier so every ministry head can have a copy. This is a great improvement over typing each month.

FIELD LABELS ANYONE?

Myles Cohen from New York uses the ADD modification given in UPDATES vol. 1, #3 (p.3) to simulate "labels" such as those used in the old, out moded, and obsolete data base programs like Vu-File. Cohen added one file which holds the label names on the line he wishes them to be printed on. Then when he is getting ready to add new files, he searches for this file. When it is on the screen, he presses "A" to ADD a new file. The proper labels are on the screen, and he types away.

As an example, suppose you use the program to store names and addresses. You could create a "label" file such as:

```
*NAME
STREET
CITY,STATE
ZIP
.
INFO
```

With this file in memory, you could find it by searching for NAME, or INFO, etc. Then, after it is on the screen, press "A" of the display options. This will start the cursor blinking and you will have a constant reminder of what information must appear on what line. By adding data, the original label is obliterated. At the start, however, the labels will tell you what goes where.

DISPLAY OPTIONS FIX

by Dave Miller

In Updates number 3, the "Additional Selections from the Display Options" enhancement on page 4 screws up the "RETURN" function. Change line 245 to:

```
245 GOTO 220*(Y#<>"M")-110*(Y#="")-190*(Y#="R")+30*(LEN Y#>1)
```

This fixes the RETURN, and a selection of "M" takes you back to the MAIN MENU.

COMPUSA DISK NOTES

by Ed Grey

I too, have a Compusa Disk system for my Timex 1500. I use a different method to save to disk which also allows me to save to tape if I want to. The method described in Updates 1:3 forces you to delete old data BEFORE you save the new data. That practice could lead to disaster.

I dedicate a disk to my expanded (D\$=30002) version of ZX Pro/File. I use preprogrammed functions to enable my drives when I want to save "ZX". I number the programs in increments of .01, which allows you to re-save the program (after additions or changes) without first deleting the old version. I continue like this until the disk is full, then I again use the preprogrammed function to delete those old versions (except the last 2). Now I can continue using the same disk over and over.

I wrote 2 programs (one to save to disk, one to delete old versions), both are accessed by the "DO-FILE" method described on page 43 of the Pro/File Manual. Listings are shown below.

```
5000 GOTO 5020
5001 GOTO 5200
5020 PRINT TAB 10;"SAVE TO DISC"
5025 PRINT AT 2,0,0$
5030 PRINT AT 4,0;"ENTER PROGRAM
NAME"
5040 INPUT 0$
5050 PRINT AT 7,0;"USE " 0$
" TO LOAD."
5060 PRINT AT 21,0;"ENTER 3-FOR
SAVE, M-FOR MENU"
5070 INPUT 3$
5080 IF 3#<>"S" AND 3#<>"M" THEN
GOTO 5070
5090 IF 3#="M" THEN GOTO 17
5100 SAVE "P A "+0$
5110 GOTO 17
5010 CLS
5220 PRINT TAB 13;"DELETE"
5225 PRINT "THE CURRENT PROGRAM
IS " 0$
5230 PRINT
5240 PRINT "ENTER FIRST NO. TO D
ELETE."
5250 INPUT FN
5260 PRINT FN;"ENTER LAST NO.
TO DELETE."
5270 INPUT LN
5280 PRINT LN
5290 PRINT
5300 PRINT "IS THAT CORRECT? DE
LETE? (Y/N)"
5310 INPUT A$
5320 IF A#<>"Y" AND A#<>"N" THEN
GOTO 5310
```

```

5330 IF A$="N" THEN GOTO 17
5340 FOR N=FN TO LN STEP .01
5350 SAVE "D A ZX"+STR$ N
5360 NEXT N
5370 GOTO 17

```

Compusa disk owners who want to implement this modification should add program lines 5000-5370 as well as add the "DO-FILE" lines provided in the Pro/File manual. Then, add these two new files to your data:

```

*$SAVO
*$DELI

```

Whenever you want to "save to disk", enter the search command: \$SAV

To delete old disk records search for: \$DEL.

NUMBER CRUNCHING "ZX"

It's not often that a short piece of new programming can add a whole new dimension to a program, but that's what happens with this mod. Pro/File the file manager turns into Pro/File the accounts manager with this hot little ditty. Once you add it, you can keep a running total of numbers that you store in files. This makes it possible to use Pro/File to keep track of expenses, costs, accounts receivable, or any application where you need to store numbers and keep running totals. Besides the more mundane business uses, I can see where this program will offer many possibilities in analysis of research data; especially if this enhancement is added to the file count option and the NOT-SEARCH feature. Let me know what you come up with.

Here's how to use this math function. Add new files so that the number you wish to add appears on the top line immediately next to the asterisk which marks the beginning of the file. Do not put any other information on the top line. Such a file could look like:

```

*210.98
1-5-85;DEPOSIT
GARAGE SALE

```

or

```

*-45.50
1-5-85;TELEPHONE

```

You can use search commands like the date, or amount of transaction. You could similarly search for an account name like TELEPHONE, or find all your deposits in January by using a multi-word search like "DEPOSIT/1-".

Regardless of your search command, the number you store on the top line will be added to the total of all the other files which are also found by the search. Numbers can be positive or negative. You can place a decimal point anywhere in the number. If you do not put a number on the top line it will not be added. Neither will a correctly positioned number if it has any other data with it on the same line.

Checks for non-numeric entries are carried out by the program so that in most cases the program will not stop with an error. However, be careful in the way you use decimal points. An entry such as:

```
*125.00.45
```

will make the computer rather cranky, and it will stop with an error. If this situation occurs, you must temporarily disable line 156 which caused the error. Then, GOTO 17 to get back into the program and EDIT the fault causing file right away so it won't cause another error the next time you go to tally it.

One very easy way to disable line 156 is to insert a REM command immediately after the line number. For example:

```
156 IF N1 THEN LET SUM=SUM+....
```

becomes

```
156 REM IF N1 THEN LET SUM=SUM+...
```

Anyway, disable the line, EDIT the file that's causing the error, then remove the REM command to re-enable the line. (Who can find a way to turn the math function off or on under PROGRAM control?)

This enhancement displays the current total with the Display Option Menu. The total up to the last found file is given. You can use the auto-search function to give you just the grand total by telling the computer to print out its data and running through the search with the printer turned

OFF. For more information on this read the File-Count option given on page 41 of the manual.

A new Display Option is added with this enhancement to facilitate Lprinting totals. Press "T" (for TOTAL) to print out the sum.

How to Make the Modification

Before I get into the nuts and bolts, I want to thank Joe Rowe, of ARTISAN ELECTRONICS, Box 6631, Portsmouth, VA 23703, for his help in getting me started with this math function. Joe pioneered several methods of number crunching from within ZX Pro/File, and it was his work that fueled my thought on the subject, the results you're reading now. Joe has several "heavily modified" pro/files which are designed to handle different aspects of his electronics business. He is offering tapes of his "crunchers" at a reasonable price. You might write to Joe to see what he has to offer us ZX/TS nuts.

Now for the nuts and bolts.

First, reduce capacity by about 200 bytes. This means that for 16K, D\$ should be redimmed to 10800 characters.

Second, follow the directions in Updates 1:2 for reserving space in D\$ for machine code (page 5). By the way, this math routine is compatible with all the other machine code mods given in past Updates.

Third, add the loader program below and GOTO 8000 to input the machine code into D\$. Enter the numbers given in the "Poker Table". Ex: 1, ENTER 0, ENTER, 0, ENTER, 42, ENTER, 123, ENTER, and so on.

```
8000 FOR I=120 TO 168
8010 INPUT Y
8020 LET D$(I)=CHR$(Y)
8030 PRINT Y;" ";
8040 NEXT I
8050 STOP
```

POKER TABLE

1	140
0	32
0	244
42	201
123	3
04	24
05	230
120	0
254	0
07	0
40	205
0	25
254	05
02	237
40	01
4	123
1	64
0	205
0	237
201	02
254	206
08	190
05	3
5	201
254	

Fourth, add these program lines to the Basic listing. After you have the mod working properly, delete the loader program lines (8000 to 8050) to conserve memory.

```
37 LET SUM=0
150 LET MCD=5+PEEK 16400+256*PE
EK 16401
152 LET N1=USR (MCD+119)
154 LET N2=256+USR (MCD+151)
156 IF N1 THEN LET SUM=SUM+VAL
D$(N2+1 TO N2+N1)
219 PRINT AT 21,0,SUM
233 IF Y#="T" THEN LPRINT SUM
```

Finally, GOTO 17 and take 'er out for a spin. Try adding a few test files and watch how the numbers get processed. What kinds of applications can YOU dream up using this enhancement?

THE BEAT ME, KICK ME, ABUSE ME,
BUT THIS IS TOO MUCH Dept.

One fellow whose name shall remain anonymous wrote, "can you tell me how to extend the VU-FILE to 64K?

Try POKE 16396,255
NEW

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in copy scanned

CHANGE RAMTOP WITHOUT "NEW" by Richard S. Erwin

Editor's note: Although this pearl of programming poetry is not a direct Pro/File enhancement, it is never the less, a utility with many useful applications for people who like to cut and hack into Pro/File or any other program. Now for Richard's wisdom:

Those of us who use 64K RAM on our ZX81/TS1000 must poke RAMTOP and execute NEW before loading large programs. This can also be done by a short machine code routine added to the high-speed loader programs like ZXLR-8 described in previous UPDATES.

This routine can be placed in a 35 character REMarks statement following any existing REMs in the loader (e.g. 2 REM for Z-XLR8). The following list is poked into the 35 locations beginning with the first REMark character--for ZXLR-8 that is location 18833.

18833	42	18850	64
18834	4	18851	237
18835	64	18852	66
18836	167	18853	249
18837	237	18854	235
18838	114	18855	237
18839	229	18856	66
18840	193	18857	237
18841	237	18858	176
18842	91	18859	27
18843	4	18860	27
18844	64	18861	27
18845	42	18862	27
18846	50	18863	237
18847	64	18864	33
18848	34	18865	6
18849	4	18866	64
		18867	201

The following BASIC routine can be used to POKE the REM:

```
7000 FOR I=0 TO 34
7010 INPUT J
7020 POKE (18833+I),J
7030 NEXT I
7040 STOP
```

The routine reads the new RAMTOP value from the random number seed, which must be preset using RAND 65535. It computes the current length of the machine stack, copies the stack to the new end of memory, sets the new value into RAMTOP, sets ERR_SP, and points the stack pointer (SP register) to the new stack.

The Z80 instructions are:

```
        .MOVE MACHINE STACK
        .NEW RAMTOP IN RAND SEED
        .COPY STACK TO NEW TOP
        .SET STACK POINTER TO
        .NEW STACK
        .SET ERR-SP TO NEW END
        .OF STACK
2A0440  LD HL,(4004) ,OLD RAMTOP
A7      AND A ,CLEAR CARRY
ED72    SBC HL,SP ,STACK SIZE
E5      PUSH HL ,MOVE TO COUNTER
C1      POP BC
ED5B0440 LD DE,(4004) ,OLD RAMTOP
2A3240  LD HL,(4032) ,NEW RAMTOP
220440  LD (4004),HL ,SET RAMTOP
ED42    SBC HL,BC ,NEW SP
F9      LD SP,HL ,SET NEW SP
EB      EX DE,HL ,SWAP PTRS
ED42    SBC HL,BC ,OLD SP
EDB0    LDIR ,COPY BOTTOM-UP
1B      DEC DE ,NEW RAMTOP-1
1B      DEC DE ,ADJUST TO ERRSP
1B      DEC DE
1B      DEC DE
ED530240 LD (4002),DE ,SET ERRSP
C9      RET
```

To include this stack mover in ZXLR-8, delete statements 9080 and 9082, and add the following to both expand the usable memory and automatically start the loader:

```
9100 REM MOVE MACHINE STACK 64K
9110 RAND 65535
9120 RAND USR 18833
9200 REM MOVE Z-XLR8
9210 RAND USR 18141
9220 REM EXECUTE ZXLR8
9230 RAND USR L
```

This routine can also be used (alone or with a loader) where the BASIC memory must be reduced to protect an area at the top of a 16K RAM. Just precede the RAND USR statement by RAND and the new RAMTOP value you want to have.

A SPLENDID IDEA!

Our old friend Irving Helbling wrote, "although I spent my entire adult life writing lengthy reports, I find that words on a screen do not look like words on paper. I am constantly in doubt about the accuracy of my spelling. The dictionary usually confirms my instinct, but it takes a lot of time.

All this leads to the suggestion that there should be a marriage between ZX Pro/File and Word-Sync, the offspring to be called ZX Word/Spell-Sync. I suspect that like me, thousands of others have the same need and

would buy such a program as its parentage would be the blueblood of TS software.

How about it?"

Dear Irving, not long after your idea came in, I got word from Fred Nachbaur (he's the founding father of SyncWare News) that he managed to merge Pro/File data into Memotext and vice versa. Now that's not exactly Wordsync, and a spelling checker is still a long ways off, but the prospect is fascinating. Fred now sells Memotext on tape and with a built-in speed load to boot for \$29.95. That's a real deal. His technique for wedding Pro/File to Memotext is free for all in SyncWare News Sept/Oct 84. Now all we need is a spelling checker offspring, and more importantly, to answer the question: Which one's the daddy?

A&J MICRO DRIVE REPLACES THE CAI STRINGY FLOPPY

The A&J Micro Drive is the "new and improved" version of the old CAI ESF stringy floppy, a very high speed tape device which approaches the speed and flexibility of disk drives but at a price of only about \$150.

This system uses a tiny wafer cassette about the size of a large book of matches to store up to 70k bytes of data. Typical loading time is 16K in 15 seconds.

The unit is small, reliable, and very professionally put together. Manuals that come with the drive are straightforward and in-depth.

If you want to upgrade your computer in the mass storage department, but you just can't justify the expense of a disk drive, the A&J Micro Drive is your best alternative. For more information, contact: A&J MICRO DRIVE, 1050 "I" East Duane Ave., Sunnyvale, CA 94086 (408)732-9292

YEAH, BUT DOES IT WORK with Pro/File?

Sure Does! T.A. Jacoby all the way from Riyadh, Saudi Arabia writes:

The Stringy Floppy Notes contained in Updates Vol. 1, No. 1 require a few changes

to accomodate the revised A&J firmware. This listing shows what I did.

The modified program works fine, except for one minor glitch. When the SAVE command is invoked, the cursor is returned as a "G". Subsequent invoking of LOAD returns the cursor to its correct "L". Everything seems to work OK otherwise, so the cursor change is just a minor irritant.

Editors Note: fix that "G" cursor by adding to the following listing: 9165 POKE 16390,0

```
17 GOTO 9000
25 IF X$="SAVE" OR X$="LOAD" THEN
N GOTO 9100
35 IF LEN X$>28 THEN GOTO 18
4000 DIM D$(10500)
4080 LET P=20
4090 LET S=2
4100 LET C1=3
4110 LET C2=5
4120 LET E=0
4130 LET Y$=""
4140 LET Q$=D$( TO 32)
4150 LET D$( TO 21)="#SEARCH IS
SAMPLE="
4160 GOTO 18
9000 CLS
9010 IF PEEK (PEEK 16400+256*PEEK
K 16401)<>128 THEN GOTO 18
9040 POKE 16390,3
9050 CLEAR
9060 POKE 16451,8
9070 DIM D$(10700)
9080 RAND USA 12291
9085 FAST
9090 GOTO 9000
9100 CLS
9105 IF X$="LOAD" THEN GOTO 9020
9140 POKE 16390,3
9150 POKE 16451,8
9160 RAND USA 12291
9170 GOTO 9085
```

UNCLASSIFIED

Sell that piece of gadgetry that failed the smoke test, or that extra printer, or memory pack. Non-commercial ads: \$5 for 5 lines.

FOR SALE: 40 column CAI printer, interface, stringy floppy tape drive, 5 rolls paper, 7 wafer tapes. Interface contains MODEM SOFTWARE on eprom. \$200
Bob Delisle, 1580 Beverly St, Hammond, IN 46324. phone:(219) 855-0067 evenings.

SALE or TRADE: Memotech keyboard for TS1000. Complete, original, like new. \$75
WANTED: 64K memory for TS1000. Contact Oscar J. Noel, P.O. Box 8-803, Anchorage, AK 99508. Phone (907) 278-1050.